

Medicine

An

Paper March 1825

Practical Essay

On

Antimonial Tartarization

Vol

Tartar Antimonii et Potassa

This subject admits of being considered in so many bearings, that to do them justice would not only give this essay too great length, but would require a more extensive knowledge of the practical application of the medicine to the cure of disease, than the inexperienced author has acquired.

By its variously modified application, it can be made to answer a great diversity of indications, and hence, it becomes one of the most valuable of our Therapeutic resources. Its most powerful and usual effect, is to promote vomiting, and this it does with perfect safety, with more promptness and with greater efficacy,

1
The above is a list of the
names of the persons who
have been admitted to the
membership of the Society.

The first meeting of the
Society was held on the
first of January, 1841, at
the residence of Mr. J. W.
Hunt, in the city of New
York. The meeting was
attended by a number of
persons, and the following
resolutions were adopted:
That the Society be
known as the "Society of
Friends of the African
Race," and that the
object of the Society be
to promote the education
and civilization of the
African race, and to
secure the redemption of
the African race from
slavery.

than any article in the prolix catalogue of the *Materia Medica*. It sometimes produces the worst effects of a poison, but this, I believe, never happens in the hands of a sober Physician, and when it occurs, it has been taken for the purpose of committing suicide, or by accident. In these cases the most prompt attention is required.

Its cathartic operation is wonderfully useful in the treatment of some diseases, and is, I believe, more frequently taken advantage of in the southern states, where Bilious fevers prevail more extensively and with greater violence, than it is in the northern and middle states. Of its Emetic operation, I shall say nothing. As a Purgative and expectorant, my attention has been called to it, in consequence of its highly beneficial operation in these characters, in the cure of a most unmanageable and almost unavoidably fatal disease, in a case of which, I employed it last summer, with a perfectly salutary effect.

It is my intention, in this essay, to exhibit a detail of this case, and its result, more for the purpose of acquiring a correct inference, than with the intention of imparting any thing new or original.

After these preliminary observations, I shall now proceed to consider the modes of preparing Testa Emetica.

In the preparation of this article, the Peroxide of Antimony, must be used, as it is only this oxide and its compounds, that are at all active on the living system, the Peroxide and the preparations made from that oxide, having been found to possess no active properties whatever.

It might be expected of so valuable an article, modes of preparation almost without number have been invented and strenuously recommended. I shall, however, confine myself to two or three of these, the most approved and now generally practised. An exact historical detail of these processes may be considered as wholly superfluous, and I shall consequently proceed immediately to that of those only that are at present recommended.

The process devised by Mr. Phillips embraces

17
The first of these is the
fact that the world is
not a uniform whole, but
is divided into many
different parts, each of
which has its own
character and history.
The second is the fact
that the world is not
a static whole, but is
in a constant state of
change and development.
The third is the fact
that the world is not
a single entity, but is
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every requisite, essential to the preparation of Tartar Emetic.

The directs for this purpose the sulphate of Antimony, which is to be prepared by boiling one part of levigated metallic Antimony, with two of sulphuric acid by weight, to dryness, in an Iron vessel, over a common fire, stirring with an Iron Spatula. The powder thus prepared is to be washed with water untill all the uncombined sulphuric acid be separated. Of one hundred parts of the subsulphate thus formed, subjected to ebullition in an Iron vessel, with an equal weight of crystals of Tartar, seventy six will be readily dissolved, and the solution, when filtered, at the first crystallization, will yield rather more than ninety parts of crystals of Tartar Antimoniacale.

By evaporating the solution still farther, an other crop of crystals may be obtained, with however, some impurities from which they may be separated by dissolving them and repeating the crystallization.

The Dublin college recommends the Nitro Muriatric oxide of Antimony in their mode of preparing

Tartar Emetic, which is as follows. Of the Nitro-chloride
oxide of Antimony, take, ℥ij. Of levigated crystals of
Tartar, ℥ij. Of distilled water by measure ℥xxviii.

The water is to be boiled in a glass vessel, and hav-
ing the oxide and Tartar previously mixed, they are
to be gradually added, and the boiling continued for
half an hour. The liquor is then to be filtered, through
paper, and allowed to crystallize by slow cooling.

This is the mode of preparation, in favour of which
the experienced teacher of the Materia Medica in this
University does not hesitate to acknowledge his predilection.

Very pure Tartar Emetic may also be
prepared from the gross of Antimony. I shall, therefore,
insert this which is the most usual mode of prepar-
ing our medicine. Take equal parts of the Sulphuretum
Antimonium vitrificatum, and the super Tartar Satap,
previously reduced to a fine powder; put them into
a glass or earthen vessel, with six times their weight
of water, boil them for half an hour, stirring them

constantly; then filter and evaporate to dryness.

To collect the Silex and destroy the gelatinous state in which it exists, the residue is to be dissolved in warm water, the solution filtered again, concentrated and set aside to crystallize. When no more crystals are formed, which is in about twenty four hours, the mother water is to be decanted, again concentrated, and permitted to stand and cool, when new crystals will be separated. This process is to be repeated until no more crystals can be obtained.

The last crystals are frequently impure, and indeed it sometimes happens with those of the first crop.

When this circumstance obtains, they are to be purified by dissolving them and repeating the crystallization.

The crystals of Tactor Emetic form in regular tetrahedrons or lengthened octahedrons.

They are nearly transparent at first, but when they are exposed to the atmosphere they slightly yellow, and present a beautiful, brilliant,



opaque, white, appearance. Their taste is. Bitterness,
acid and metallic.

There has been a difference of opinion
as to the chemical composition of this salt. Some con-
sider it merely a tartarate of stannous and have called
it *stannionium Tartarizatum*. Others considering it a
triple salt composed of tartare acid, stannous and
starch, have called it *Tartarus stannicus* at Bologna.

According to the new nomenclature the last men-
tioned name is correct as it expresses the true compo-
sition of the article; but for the purpose of the Physician
the old name of *Tartarus emeticus* as given to it by Astruc
Hersiehl in 1631 runs as much the best, since it
expresses its properties which are one of the greatest conse-
quences with him. As to its solubility a still
greater discrepancy of opinion exists, some affirming
that it dissolves in cold water in the proportion of
fifteen parts, while others say, that in order to dis-
solve it six parts of boiling water are required. I believe



that it weighs about three times its weight of boiling water in order to its solution.

Santon Emetic is decomposed by most Acids, by the Alkalies and their carbonates, by the Hydro Sulphuric acid by many metals, also by saeps, it is also decomposed by most of the Purgatives and Laxatives, the vegetable bitters and Astringents, Gentian and Stimwood opposing the principle exceptions; Alkaline Sulphuric do not decompose it when they are perfectly neutral.

I next beg leave to suggest some precepts which should always be attended to previous to the exhibition of an Emetic.

The state of the system particularly demands attention. If it should be in a state of extreme debility, there is great danger that reaction should not take place and the patient must inevitably sink, perhaps irremediably. If on the contrary the system is plethoric apoplexy or other bad



effects arising from a distended state of the vessels of the brain might ensue. In the first of these cases the Emetic must be carefully avoided, and in the latter its exhibition should always be preceded by dissection; they are not to be used when there is violent inflammation of any of the viscera, they are to be particularly abstained from in advanced pregnancy; nor are they to be used when a prostrated state is the result.

In great emergencies a large dose is to be given at once, but under ordinary circumstances it is better to give the Tardus Emetic in divided doses, violent effects are thus obviated, while the medicine operates with more efficacy.

When we have choice of the time at which to exhibit an Emetic, it will be proper to give it in the morning on an empty stomach. This, however, is a very general rule and one that can not always be complied with.

If it is merely our object to evacuate the stomach,



large draught of tepid water or chamomile tea should be freely drunk, but if we wish to extend this operation to the system and produce a strong and revolutionary effect on it, no drink should be allowed.

When the vomiting is inordinate, it may be checked by giving Laudanum combined with some cordial, or by fomentations to the Epigastrie region cold water dashed on the surface more especially on the extremities will often prove successful, and where it is not likely to prove prejudicial it should be our resort. Iodoform applied to the ~~extremities~~ will frequently relieve inordinate vomiting.

Tartrac Emetic is one of the most certain safe and uniform vomiting medicines in our possession, and by its judicious application as an Emetic we consider it one of the most valuable of our Therapeutic resources. As a cathartic it operates most advantageously in many diseases.



By its Diaphoretic operation, it answers the most important indications, more especially in the treatment of fevers. Its Expectorant property renders it useful in all the diseases of the pulmonary system, and to which we resort when these remedies are applicable.

In order to secure the different effects the dose and circumstances have only to be attended to.

As an Emetic, it must be given in the dose of from two to six grains. The best manner of administering Tartar Emetic, is not so well determined. Some preferring the vinous solution, while others prefer the simple water solution. The antimonial wine is in too general use now, to be superseded in any short time, by any other preparation, though the aqueous solution possesses many advantages, and for several reasons should be used in preference. It is not necessary for me to mention any other mode for its administration, as these are the best and generally adopted.



In order to secure the antispasmodic operation of Tartar Emetic, it is necessary to cause a little nausea; for this purpose it is best to give it in small doses, such as the fourth of a grain, repeated every half hour; under such circumstances it will operate very mildly, producing, however, plentiful discharges.

Its expectoratic operation is produced by administering it, in the dose of from the seventh to the eighth of a grain, to be repeated three or more, keeping the patient warmly covered in bed.

Expectoration is apt to be copious at these efforts, but if it is desirous to have that effect alone the thirty second part of a grain will be sufficient to promote that end.

The next point of view in which Tartar Emetic is to be spoken of is its application to the treatment of diseases, in which it may be used with advantage and I shall first speak of it in



in fever, commencing with Intermittents. The type of *fever* being caused by Malar Miasmata and having its seat in the stomach, we find that organ loaded with the partial accumulations of indigested food and viscid secretion, causing the symptoms of foul tongue, stilted breath, nausea, vomiting and other symptoms indicative of such disordered state of that organ, indicating in the plainest possible manner the propriety of vomitive means.

It is not my intention to enter fully into a detail of the symptoms of each stage of an Intermittent, but shall mention but a few circumstances which point out the propriety of exhibiting Iosba Emetic.

To prevent the recurrence of the fever again is of the greatest importance, and should first attract the attention of the practitioner; this may be accomplished most effectually by giving a dose of Iosba Emetic, so as to excite vomiting about two or three hours previous to the accession of the expected



phosgene, the patient should be confined to a bed in which he should be carefully covered so as to excite a perspiration, which may be maintained for several hours; this practice will often prove successful if the case is recent, but if it is one of long standing, more than one operation will be required in order to cure the patient. In such cases a reaction crisis should be instituted. An Emetic every morning in succession for several days, will often cure such cases, after every other mode of treatment has failed. — The paroxysm may also be procured by exhibiting Tarter Emetic, in minute doses, so as to act as a Diaphoretic. The reaction it is necessary to keep up for several hours carefully avoiding the slightest exposure.

When from the malignancy of the fever reaction does not fully take place and as a consequence, we have an accumulation of blood in the brain or in the lungs or any of



the impudent siccata, producing a dangerous state of things, a dose of Iosler Enthalic is not only a true remedy, but has been productive of results the most important and salutary.

During the cold stage, and the commencement of the act, Enthalic can suit with the greatest propriety, and most signal advantages. A dose of Iosler Enthalic judiciously administered, is the first step of the disease, will remove the action of the heart and arteries, relieve pain in the head, quiet the sickness of the stomach, and, by determining to the surface, excite the circulation, and cause a gentle diaphoresis, the matter profusely being evaporated, the temperature of the body is lowered, all of which circumstances tend to induce quiescence and hasten to a critical solution of the disease.

In Rheumatism and Catarrh of the joints, attended with symptoms of gastric disorder, Enthalic can be used with an equal advantage. That judiciously administered Iosler Enthalic is only applicable to the prim-



any stage of these fevers, and since they are justly
 chiefly called for in the advanced stage of intermittent
 or continued fever, they cannot be expected necessarily
 to cure the fever, and in the condition they are
 often productive of with the most pleasing and beneficial

In the advanced stage of these two types of fever,
 as well as in the advanced stage of intermittents,
 Ferme Ferme is more used for its Purgative operation
 than as an Emetic.

In the latter case of an ordinary state
 the ability of this colic is highly estimable, and many
 times we undoubtedly need by means, and it is em-
 ployment. In such cases we find the time suggested
 and its secretion easily and vitiated with an entire
 derangement of the course of the chylificative course, the
 stomach loaded with curdles, and the L. intestinal canal
 distended by undue accumulations of vitiated secretions
 and half digested aliment; a large dose of Sack Ferme,
 given with warm water or chamomile tea, will completely



evacuate the stomach of all its noxious contents, and by extending its operation to the liver, cause an increased secretion from that organ at the same time, that at changes it is a healthy one, and does not grow firm stop here, - after it has acted to some extent, it opens mita in the bowels, liberates, away with their contents, copious evacuations will be.

There is another mode of administering Tartar Emetic in these cases which is practiced more extensively, and which is perhaps preferable. It is to take six grains of Tartar Emetic one ounce of Glauber salt, and eight ounces of hot water, mix, and give one fourth at a dose, to be repeated every fifteen minutes, until it operates sufficiently as an Emetic a little salt gruel or any emetic article, will now be adequate to the increasing its operation, and a plentiful but not cathartic operation will be maintained.

In Typhoid cases, Emetic Tartar it is



said has been used with advantage. I would suppose that it was only applicable in the former stage of the disease, where the symptoms require an Emetic.

In Recipient cases Emetics have been used and not without ability. Where they are always indicated, they should be prescribed and they will often be productive of the most satisfactory effects. I order Emetics as usual in the case as now they relate to the stage.

In the treatment of the Enteric affections our medicine stands prominent. The sympathy existing between the stomach and every other part of the bowels and more especially the *caeca* is so well known and so generally appreciated, that for me to do any thing more than name it, is, as it were, superfluous. By evacuating the stomach, and keeping it clear of all offending matter, we secure its salutary impaction over the bowels



system, which is a matter of the greatest consequence
in the treatment of these affections. It is argu-
ingly demanded to promote the evulsion when it stands
and it must be when it is resisted.

Especially in the face, will yield fre-
quently to a dose of Turke Emelle; and it would
always be used in the disease, unless previously
contraindicated.

In the Pleurisy, Turke Turke
has been earnestly recommended and the ability
of it eagerly insisted on, by the French writers
and in confirmation of its applicability and salu-
tary influence, they have produced evidence the
most positive and convincing. Linnæus who gave
turke genius of the medicine in Sweden, has
declared his conviction of its superiority over
every other mode of treating Pleurisy, not even,
excepting bloodletting, and in favour of this opinion,
he instituted some comparative experiments between



the two modes of treatment in that disease. Of the accuracy of these statements, notwithstanding the high character of the author, were I otherwise fully satisfied in doubt. I do not hesitate to put somewhat sceptical; that is, at least on the whole every one who has any experience will not hesitate to admit. Vanthier another French writer, gave it in very much the same he described one given in ten or twelve parts of water, which was to be used as a drink.

In chronic Inflammation which near Vanthier's case, one or two grains may be taken in the evening four times, administered as recommended by him.

In acute Inflammation the quantity may be increased to three or four grains in the morning.

Of the utility of this medicine in then as well as all other cases of chronic or acute inflammation, no one can doubt, provided by some other and other adjuvant circumstances, its efficacy is well adapted to its indication.



The transference of Toxic Eczema
in the treatment of Dr. Williams, I believe will
be strongly illustrated in the resolution of the case to
which I alluded in the introduction to this Essay.

In the last of January 1844 I was
attacked with a swelling of bright red, puffy and
firm my limbs, and an extreme prostration of
muscular power. After several weeks confinement
I slowly recovered, but from impatience in diet a
gain in the affected side continued with some
febrile action. A purifying course commencing I began
to apprehend that it was about to terminate in per-
manency consumption, and actual medical aid I resorted
myself to medical treatment, being anxious to ascertain
the real cause of Toxic Eczema in the particular
form of poison, and thinking my case suited to its
application, I took half a grain mercury and creosote
for about six weeks, in conjunction with occasional
bloodletting, Saline purgatives, and the strictest



antiphlogistic regimen; but finding the pain equal-
ly as severe and constant as before, and the cough
but little relieved, I determined to increase the dose.

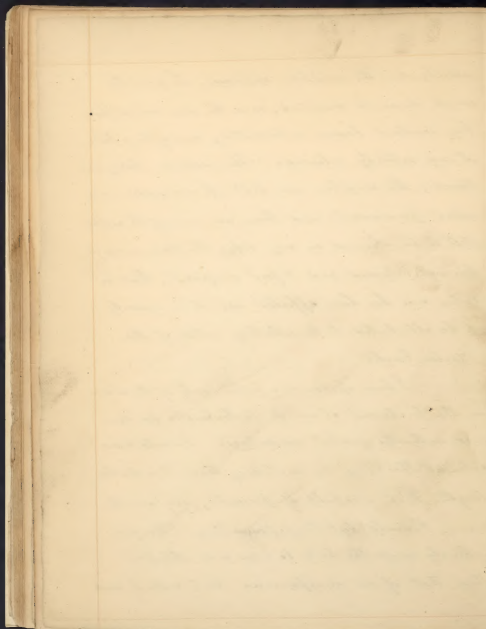
Accordingly one grain was taken morning and night;
nausea being induced, the Tartar Emetic was discontinued
for a time and a blister applied, the effects of which
were very transitory. On returning to the use
of the medicine after about two weeks had elapsed
in the dose of half a grain morning, noon, and
evening, I found it to operate with much more
activity. I expectorated very freely, and perspired
profusely on making the slightest exertions.

This profuse perspiration did not continue long,
before I felt a burning pricking sensation extending
over the entire surface, to which soon succeeded
an eruption. I now began to flatter myself
with the expectation that a salutary effect was
to be the result from this operation of the medicine
and which expectation was soon realized.



scarcely had the eruption appeared, before the cough began to diminish, and the pain which had been constant became intermitting and after a time it was entirely relieved. The medicine being continued, the eruption was kept up and made somewhat permanent, and there are some of its acists still to be observed on my body; the pain or cough has not returned and I feel confident, that an entire cure has been effected which is mainly to be attributed to the salutary action of the Tarter Emetic.

I have spoken of a portion only of the diseases in the treatment of which Tarter Emetic has been used with the greatest advantage. I would have extended this Essay by including them to a proper length. But incapable of presenting any sound views, I should but trespass ~~on your~~ time. I therefore willingly resign the task to some more able pen than that of an inexperienced but ardent and



enthusiastic student.

Thomas, Peter, Robby, Stephens
Of Georgia.

